

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave. St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001596**Date Inspected:** 20-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei & Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

This Quality Assurance Inspector (QAI) observed various fabrication and welding practices at Zhenhua Port Machinery Company (ZPMC) on Changxing Island in Shanghai, China today for the Self Anchored Suspension Bridge for San Francisco, California.

Orthotropic Box Girder (OBG)

This QAI performed final visual inspection on welds 6, 7, 8, 9 & 10 of Deck Plate DP59 PL124A. Various indications were noted ranging from under cut (UC), weld over lap (OL), under fill (UF) and lack of fusion (LOF).

Weld 6 there was 28mm of UC; 50mm of OL.

Weld 7 there was 10mm of UC.

Weld 8 there was 145mm of UC; 7mm of UF.

Weld 9 there was 29mm of UF

Weld 10 there was 120mm of UF; 415mm of OL

Data was entered on the Caltrans QA Visual Inspection Report for the OBG Deck Panels by QAI's Alfredo Acuna and Tim McClendon for Deck Plate Panel Number DP059-124A.

During welding of closed u-rib to deck plate panels today ZPMC production completed the gas metal arc welding (GMAW) of the root weld on the Production Monitor Test (PMT) and the first production deck panel DP-014-002

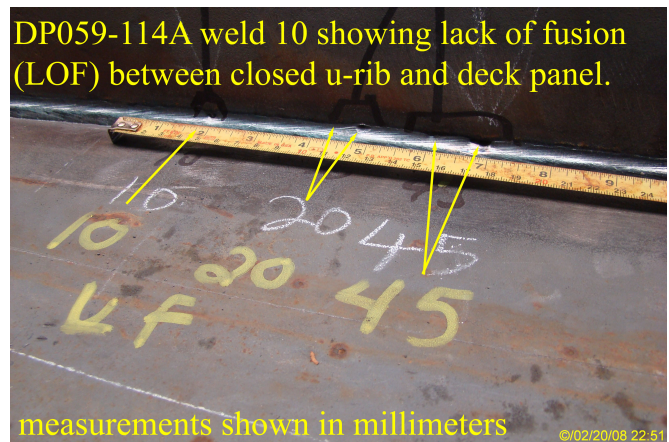
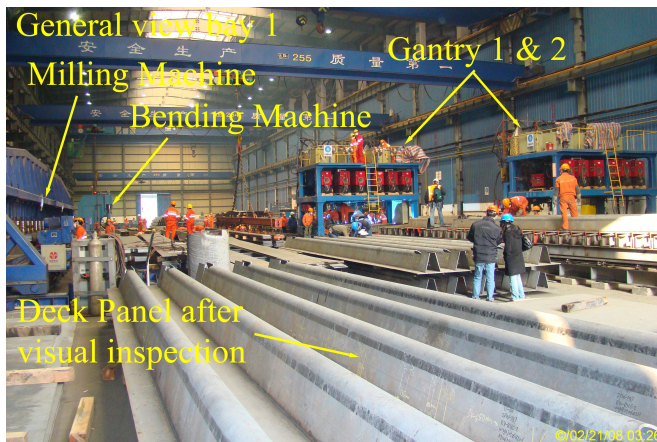
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and then moved directly onto a second deck panel DP-014-001. This was not in compliance with the Caltrans and American Bridge/Fluor (ABF) verbal agreement of completing the submerged arc welding (SAW) on the PMT and first production panel and performing 100% visual inspection on both.

This QAI further witnessed the submerged arc welding (SAW) of the deck panel splice weld, DP005-001-007 by ZPMC welder Han Chung Hao, welder identification 059464. Also witnessing the welding was ZPMC Certified Welding Inspector (CWI) Chen Xi and Quality Control Inspector Wang Xian Pin. Some of the essential welding variables were check and records as follows; voltage 29.3, amperage 490, travel speed 410 millimeter per minute and preheat temperature 36°Celsius.

This QAI witnessed magnetic particle testing (MT) by ZMPC MT Technician Zhou Dong Yun on closed u-rib panel fillet weld DP-063-001-059 on U-58 welded by ZPMC welder Zhou Cheng Shuang, welder identification 059400. This was representative of 10% MT testing of closed u-rib panel welds. The MT of the weld was accepted by Mr. Zhou.



Summary of Conversations:

No conversations were held today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Berger, Bruce

Quality Assurance Inspector

Reviewed By: Cochran, Jim

QA Reviewer